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ABSTRACT

Selected aspects of the educational process, from infancy through college, are examined in a series of interviews broadcast in the weekly National Public Radio series, "Options in Education." Child psychologist Burton White discusses his book, "The First Three Years of Life", which deals with the significance of early influences on growth and development, stressing the need for parent education. Research is described which indicates a minimal role for television and manufactured play equipment during the first years. A brief talk with children's author Leo Leonni focuses on his book, "Frederick", which dramatizes for children the role of the artist in society. Problems posed by the transition from the adolescent to the adult work world are considered in a report on the Tunbridge experimental work-study program, which permits students to examine a professional field before committing themselves to a job or course of study. A subsequent individualized self-training program offers individual tutor guidance and student workshops, with career education conducted through student contact with a volunteer network of working people from various fields. An innovative program in which the student designs his own course of study is described by writer Isaac Bonowitz, recipient of the first degree in the occult granted by an accredited academic institution, and high school students talk about their role-playing experiences as participants in a model United Nations program. (Author/BF)

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INSTITUTE FOR EDUCATIONAL LEADERSHIP
THE GEORGE WASHINGTON UNIVERSITY

TRANSCRIPT FOR PROGRAM SCHEDULED FOR BROADCAST

THE WEEK OF MARCH 14, 1976

National Public Radio

# Options in Education

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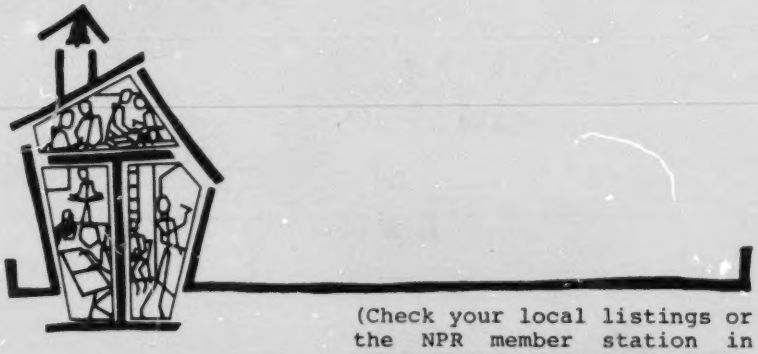

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Contact: Ms. S. Gay Kinney
Public Information
(202) 785-6462

(MUSIC).

BLAIR: I'm Wendy Blair with NPR's OPTIONS IN EDUCATION.

(MUSIC -- CHEERING)

OPTIONS IN EDUCATION is a news magazine about all the issues and developments in education -- from the ABC's of primary education to the alphabet soup of government programs. If you've ever been to school, we have something that will interest you.

(MUSIC)

MERROW: This is John Merrow. Education is a process of becoming what you can be. One way to get there is by pretending to be what you're not, like role-playing at a model United Nations.

STUDENT: . . "work on tin, a little bit of oil. One of the countries which has been supplying us with aid is Venezuela, who happens to have a lot of oil."

BLAIR: Another way is by working with people who already are what you want to be.

JAN RAKOFF: "One of our students, when she expressed that interest, was able to develop a project which involved a legal aid society, a law firm, the District Attorney's office, the public defender's office, the sheriff's office, the police department -- I forget what else."

MERROW: And a child psychologist says you can be much more than you might have been, if you start soon enough.

DR. WHITE: "Somebody gives you five pounds, and they say take it home -- it's yours. Well, if you've got any brains at all, you know that's a huge responsibility, and you weren't prepared for it."

(OUTDOORS SOUNDS & FOOTSTEPS)

CHILD: "Hey, Lady -- lady, you. My name is Edith Ann, and I'm five and a half years old. (LAUGHTER) I'm here all by myself. (LAUGHTER) I'm all alone."

LADY: "Well, what do you mean you're all alone -- where's your mother?"

CHILD: "My mother -- I had to send her to the institution." (LAUGHTER)

LADY: "You had to send her where?"

CHILD: "She needed a rest." (LAUGHTER)

BLAIR: Lily Tomlin's child character Edith Ann, makes a good point. Raising children isn't easy. And most of us could use a lot of help.

STAMBERG: "Any parent can sit down with this book, which is written in deeply human language and easily accessible -- thank you very much. It doesn't have all the jargon that one sometimes might expect from a psychologist, and tells you really how to."

DR. WHITE: "That's what it is -- it's a how-to book."

BLAIR: How to have happy and smart children -- the latest blueprint -- is a book called "THE FIRST THREE YEARS OF LIFE." Dr. Burton White directs pre-school research at the Harvard Graduate School of Education. He talks with NPR's Susan Stamberg.

WHITE: We only begin to try and influence the growth and development of a child when he becomes six years of age as if the first six years somehow or other weren't terribly consequential. That's insane. Now, what do parents do -- again reminding you that what they do they do because of a variety of happy accidents, rather than because they know what they're doing -- is about as follows:

The child gets to be six or seven months of age. They either prepare then or soon after the child's beginning locomotive activities to make the home a safe place for a child. That's very important. Children are objectively in great physical peril between the onset of crawling and two years of age.

STAMBERG: But that's no secret knowledge. Isn't that something every mother learns -- you put the Ajax up on the top shelf -- you get the razor blades out --

WHITE: Have you ever seen the statistics on the poison control centers in this country? An awful lot of people learn about accidental poisons in childhood in the emergency wards of our hospitals.

Secondly, and more importantly -- there are two ways of coping with the danger, the two classic ways. One is ward off the danger in advance -- keep it low. Another is head it off at the pass totally by restricting the locomobility of the kid.

STAMBERG: Put him in the playpen and lock him up --

WHITE: Put him in a playpen and lock him up -- put him in a jump seat in front of a television set. Give him a three hour nap in the morning and a three hour "nap" in the afternoon. Don't let him locomote.

STAMBERG: It's much easier that way, isn't it? You're not running after the kid all the time.

WHITE: You don't wear yourself out. He doesn't mess the house up.

STAMBERG: And what else isn't he doing?

WHITE: He isn't learning. At least, he's nowhere near learning the way he could if he was given a chance to roam through that fresh new world that even the crummiest of apartments contain.

STAMBERG: Somewhere you write that going into the home of a nine-month-old child and seeing it perfectly neat is a danger sign.

WHITE: It's a danger sign.

STAMBERG: When you see it really sloppy, with junk all over it, you know that this is a kid that's being educated.

WHITE: Or else I know I'm in my own home. (LAUGHTER)

STAMBERG: What do you say to them? I've got to cover for these mothers, being one myself. What do you say to the mothers who say, "I can't live with this mess any more -- every time I look, that kid's turning over something, and I'm picking up after him all the time?" She's got a legitimate gripe.

WHITE: Well, you're starting at the wrong place. You can't get there from here. It's the same thing as asking the question -- what do you say to a woman who's got a two-year-old who's very aggressive, hurts the baby, and is just very difficult to live with. What you say to that woman is go back a year and a half in time and start out the right way. Okay? The same thing is true about the sloppiness. What we need is massive public education. People have to know in great detail, and it isn't difficult to learn just what on earth is going on in the shaping of a human being. We're really in the next generation mindlessly in most instances -- that's criminal!

STAMBERG: Somebody made the point to me that every generation is raised by succeeding generations of total amateurs.

WHITE: That's right, and now look what's happened socially. At least a few decades back, more people were living near their folks. They had kids, and they could turn to their folks and say, "What do you do when this happens?" Secondly, nowadays even some of those that are still living nearby have a new kind of orientation towards the last generation. They didn't know anything -- I'm not going to listen to anything they say -- I'm going to do the opposite. So, what's the result. You're left with a nuclear family going it alone, and sometimes in many of our subcultures, the husband has a perception of child rearing which says, "That's not for me -- I'm out there earning a dollar -- that's her job." So the woman has the whole thing herself. That's a terrible thing to do to a human being.

STAMBERG: You also made the point in here of where to turn for help, where to turn for advice other than to a book like yours. You say very often the thing to do is to turn to the neighbor with the seven kids.

WHITE: That's right.

STAMBERG: Those kids seem to be pretty happy.

WHITE: If they've done a good job, yes.

STAMBERG: That's lovely of you -- your're not sending us out to psychiatrists, shrinks, expensive pediatricians.

WHITE: Well, it's not all that sweet. It's largely based on a very critical attitude about a lot of people who have a responsibility or assume one for guiding young parents, but who aren't

qualified to do so. You can't get very far without knowledge based on first-hand experience or knowledge based on relevant extensive science. I'm pretending to have the latter, and a lot of people out there in the country, many of them just languishing on the vine, have the former. Very few other people have either. That includes a lot of people in pediatrics, in child psychiatry, in public health, and in a whole host of respectable professions who get sucked into this tremendous vacuum and need for knowledge that parents have, and need for reassurance -- and who freely offer opinions when they don't know what the hell they're talking about.

STAMBERG: This word you use -- reassurance -- is so important, because that's the element that gets overlooked so much -- how scared new parents are, especially in that isolated nuclear family situation where they don't know where to turn and feel they're being watched --

WHITE: That's a normal reaction. Somebody gives you five pounds, it's breathing, and they say, "Take it home -- it's yours." Well, if you've got any brains at all, you know that's a huge responsibility, and you weren't prepared for it. It's like putting somebody -- I had a chance to pilot an airplane the other day -- it's like saying to somebody six thousand feet in the air -- "Do it." It really is parallel to that.

STAMBERG: Yes, and yet there's the assumption that society makes, that it's all natural, that there's a maternal instinct that suddenly you find that five pounds and you know just what to do. And there's a loss of face in saying, "Gee, I don't."

WHITE: That's right. But there is some truth in the notion that some of it is "instinctive." There are some things that I don't think can be taught. For example, we've noticed that really effective parents are good listeners. When a child comes to them and is very excited, but at the same time has the remnants of something precious that was broken, there are some people who see only the broken something. There are others who see the excitement, and the broken stuff is secondary. And the former kind is the kind who routinely tries to figure out what's on the kid's mind when the kid approaches. That's an element within great child rearing as far as we can see. And there are some people who are apparently no longer capable of doing that. They're just too wrapped up with themselves.

STAMBERG: All right, so, keep a messy house -- keep your ears open. What about conversation -- talk a lot, stimulate in the early --

WHITE: The more talk the better. As far as we can see, that generalization holds true, even if the kid doesn't have a shot at understanding any of it. The talky type has a kid who learns language well and who gets a lot of associated ideas quite naturally ard spontaneously. Your best bet is to build as much of that talking as you can around what it is the child is interested in at the moment, because then you have his orientation, then you have his attention. That's the best opportunity for teaching.

STAMBERG: Now, you're talking about the infants, so when you're feeding them peas, you say, "These are Gerber's peas, they are green, they are round, and they taste good."

WHITE: Well, I would hope it wouldn't be quite so icky.

STAMBERG: Peas are icky -- (LAUGHTER)

WHITE: In general makeup -- but if a child comes over to you and is holding his wrist because he's got it squeezed in a cabinet drawer or something and obviously wants nurturing, if you pause and notice what the problem is -- it's usually quite readable. They're not very devious types at less than two. So you can identify what it is, the kid is motivated and focused on that topic; and you can then do something -- first of all, kiss the hand by all means, and hug the child and comfort him and so forth. But at the same time, you can say, "Boy, your hand looks like the grapefruit I had for breakfast -- what an awful-looking" -- anything, it doesn't make any difference what. As long as the idea is related to what the kid is focusing on.

STAMBERG: Freud told us it was the first five years that were crucial. Now, you're cutting us even back further than that. Here I am with a boy who's nearly six. Are the rest of us simply to give up -- we haven't read the book, we haven't done all these things in here that you're telling us.

WHITE: No, the message to those with children over three is the message we've had for decades -- if you love a child and if you are aware of the fact that he is developing, not only for the first three years, but throughout his minority years, and indeed on throughout the rest of his life, you will do everything within your power to give that child at whatever stage of life he is the best possible support for his development.

But, my message to you, and to society as a whole, is - let's stop looking at education as a process that we look at through blinders. It's not a process that starts at six and ends at 18. It starts at least as far back as birth, and if a child is reared well, he can be a marvelously rich three-year-old. And that's what I want every child to be. Our research is not narrowly oriented. It's oriented towards the whole kid, and a large chunk of that whole happens to do with what kind of a human being he is socially, whether he's nice to live with and comfortable with himself.

STAMBERG: Is it all over, though, after the first three years?

WHITE: I don't think you can ever go back, at least not off the evidence that we have. I've been tracking down where able people come from since 1957, and what I think we have found, and I'm quite confident of it, is that most people manage to get through the first six, seven months of their life moving ahead well, that the requirements for learning in a comprehensive way are relatively modest. But that from six, seven, or eight months on, once the child begins to be able to move about the home and learn language, it's a rare family that, in this accidental situation we have, manages to feed the child's curiosity and social appetites with great skill.

STAMBERG: That's the reason for this book -- to take that rare bird -- and make it not quite so rare?

WHITE: Precisely.

STAMBERG: But did you find that your highly successful parents, the ones who were doing all these proper kind of stimulating things to the child at very early ages, were raising children who read awfully early, who simply as a by-product did that?

WHITE: Yeah. These kids could hold their own with anybody out there who is force-fed intellectually. These children at three

had Stanford-Binet scores that clustered around 140, which is well over the 99th percentile. And they're not, by the way, kids from just high-income and high-education families. Our populations were across-the-board. We think that almost any family in this society, certainly large percentages of them, can do as good a job as anybody else in the first two and a half years of life. From then on, it would appear that to have an educational background of strength, formal or informal, gives you an advantage in child rearing -- for an interesting reason. Prior to two and a half, the linguistic and higher mental capacities of the child were so limited that the major advantage that comes from a higher education in the way of interesting content and more complicated thoughts were moot with respect to the younger child. But from two and a half on, they're not.

STAMBERG: But you don't create an arbitrary age at which every child ought to know how to read and say --

WHITE: No, I'm just talking about the timing in a child's life as to when he can be fed what. One consequence of this is that in the future, families with relatively weak educational backgrounds will be receiving some sort of supplementary help, even if the kid is developing well, starting at two and a half years of age -- we're thinking now single-mindedly about what each child could profit from.

STAMBERG: You take the span of the first three years of life and you break it down into various phases. That always tickles me when scientists start to do it. It seems so arbitrary. You know, if you have seven phases, why couldn't you have eight or why couldn't you have two? (LAUGHTER)

WHITE: Are you Woody Allen in a wig? (LAUGHTER) Or Mel Brooks!

STAMBERG: I'll go along with your phases just for the point of conversation -- what happens to the parent who looks and sees chronologically on the calendar that the kid is in phase three and the kid's not doing the things that Burton White is telling you?

WHITE: Well, if you look at the table of contents, you will find that there is a section toward the end of the book called "Selected Topics," or something like that, about the whole process. And one of them has to do with the variability of onset of behaviors. This is a principle, a fundamental principle of human development. The child can learn to say his first words as early as eight or nine months and as late as two and a half years and still be quite normal.

STAMBERG: But coming to that kind of information, as a parent, I never read those caveats -- ever.

WHITE: The answer is education. You've just got to have a better informed, a more literate -- I don't mean literate in the sense that you have to read -- but you've got to have people who know as much about the details of educational development the first year as they do about running the garbage disposal, driving a car, and paying their bills, because that topic of what's happening to that life is far more important. And it's rich. And it's complicated, not so complicated that most people can't understand most of it, but complicated enough so that it doesn't come with your birth certificate. You've got to learn it.

BLAIR: More from Dr. White later when he talks with Susan about toys and TV.

CHILD: "And that's the truth." (LAUGHTER & CLAPPING)

LEO LEONNI: ". . how to say this. I try to bring myself, to understand myself in the very simplest terms, almost banal terms. I get to something which I and children have in common."

BLAIR: Leo Leonni has written and illustrated a host of books for children. Reporter Connie Goldman talks with him about her favorite, "FREDERICK."

LEONNI: I've just had a very nice piece of news. I don't remember exactly the organization, but it's one of the large women's lib organizations, who accepted FREDERICK as a recommendable children's book because FREDERICK does not embody a stereotype of the male chauvinist mouse. (LAUGHTER) He is sensitive, he's a poet, and I really never think of my characters as either being boy or girl.

I've always been, and I guess this is a personal problem which we all face. I've always been conscious and puzzled about the role of the artist in our society. I've felt guilty about it very often, and I've tried to understand it and sometimes to justify it, and that's what FREDERICK is all about. FREDERICK does not work like the other mice when they have to gather stuff for winter. He's there, he's looking at the sun, and he says later he was collecting warmth. He's looking at the fields, and he says when the others were gathering corn, he was gathering colors. And once they found him with his eyes closed, and they said, "Why aren't you working, FREDERICK?" And FREDERICK says, "Well, I am working -- I'm collecting words for the winter. And when there is a crisis during the winter later on, as you know, they go to him because they are fighting among each other, and they cannot talk to each other any more. And they go to FREDERICK, and FREDERICK delivers the goods that he has been gathering -- the colors, the warmth, and finally, the poem that he says at the end. And at the end, the other mice applaud -- they're very excited, and they feel warm, and they feel good. And they said, "Well, FREDERICK you're a poet." And he says, "Well, I know it."

GOLDMAN: I guess there's nothing wrong with telling children of all ages that we do need our artists.

LEONNI: It's also that we need our children, which is also very important.

(MUSIC)

CHILD: "I will tell a story that I made up. Once upon a time, there was a little boy -- I mean a little girl -- and he had three donkeys that he had to take care of the whole time, but except he didn't have any food in the forest. He had to look and look until he found -- but he had no car. He was too tired. And he said, 'Hey, can you help me?' 'All right, let's both work out.' And they all worked out to the store so they could get some food for the donkeys."

MERROW: "That's a very nice story -- is that the end?"

CHILD: "No, but it's not the end, and after they walked, since the store was closed, they tried

every store, but they could not find every store."

MERROW: "That's a nice story -- is that the end?"

CHILD: "No, but when they saw, they went back to home, and then after that, his father had some food. And he fed all the donkeys."

MERROW: "Oh, so you mean the father was the good guy in the story?"

CHILD: "Yeah."

MERROW: "I like that story." Is that the end?"

CHILD: "Yeah."

MERROW: I wonder if Leo Leonni would like to take a crack at illustrating that story.

(MUSIC)

BLAIR: Earlier, Dr. Burton White said the first three years of life are the most important to our development, but there are other critical times too. The Tunbridge Approach to education responds to the problems posed by the transition from adolescence to the adult world of work. Rose Tobin reports on the Tunbridge program at Lone Mountain College in San Francisco.

TOBIN: The idea is to train students how to study a profession, how to decide what they want before committing themselves to a job, or to a course of study. Jan Rakoff created the Tunbridge program, designing it to fill gaps to satisfy needs left untended by conventional work-study programs. A student who signs up for Tunbridge makes a five-month commitment to the 16-credit program. There are no teachers, as the students are expected to train themselves. Individual tutors give guidance, and students attend workshops and tutorials. They write journals and project proposals. True career education begins when the student contacts the network. The network is a group of 450 working people from many trades, professions and fields, who volunteer to help Tunbridge.

A student's first task is to contact at least twenty networkers in their chosen field, just to talk about the work. Jan Rakoff sees the networker as a very necessary part of the Tunbridge experience.

RAKOFF: What Tunbridge has endeavored to do and which makes it quite different from most programs is that it has sought methods that will get a large number of people in the community to basically act as educators, rather than as employers. The relationship is this: In most off-campus programs, students are placed in a given setting where the range of their activities or experiences is quite small, and everything they're going to learn is within that range. Tunbridge, because it's free of this kind of labor model, seeks projects which start at the large end of the funnel and narrow down, and, therefore, if somebody says to me, to give an instance, that "I am interested in law" -- in a traditional experimental program, if you wish, that student might go out and work for a few months with a legal aid society and learn something. One of our students, when she expressed that interest was able to

develop a project which involved a legal aid society, a law firm, the District Attorney's office, the public defender's office, the sheriff's office, the police department -- I forget what else -- and, therefore, was able to see the law from many different facets. Actually, it was more specific -- it was criminal justice from many facets.

Now, in order to get that kind of overview, you need to talk to the different people who represent those different aspects of the same larger field, so that's one reason for many interviews.

TOBIN: While contacting and interviewing networkers, a student still has duties at Tunbridge. There are no classrooms, no books, no tests, but there is structure to the Tunbridge program. There are workshops and group tutorials, brainstorming sessions to attend. Each student keeps a journal of his thoughts and activities. The student works very closely with his tutor. The tutor is both counselor and idea man. He or she works closely with the student helping to organize thoughts, desires, and hard facts into meaningful projects. It's a difficult job. A tutor may offer ideas, but his responsibility is to help students think for themselves.

Tutor Dick Coleman admits that sometimes he gets a little too enthusiastic about his own ideas.

COLEMAN: Especially if it's one you're interested in. It's easy to look at it and see what I would like to do and see how I could put together a project. In fact, an example of that is, last semester, George, one of the other tutors, and I sat down. We each had students who were interested in art and children and children's literature. And sat down in a joint-brainstorming session with them, and we came up with what we thought was a great idea -- to do a children's artbook/guidebook for a museum, and we talked about a lot of great ideas. And Tim and Sherry were sitting there, and I think they thought it was a good idea, but they were really resisting. And I think it was in large part resisting because it wasn't really their idea. One of our roles is to serve as a sort of a source for ideas to generate things in different ways a student can go, different ideas they can maybe grab on to as a seed and then build on themselves. Or just get them thinking in different kinds of ways. But it is true that it's easy to begin and try to think for them, rather than making them think for themselves. And that is something that you have to be careful of.

TOBIN: Students are encouraged to write and rewrite preliminary project proposals as they do their interviews. At the end of the interview phase, the student is expected to produce a complete proposal for the project he will work on for the rest of the Tunbridge semester. Individual and group tutorials continue, the faculty are always there to help, but the student is responsible for completion of his project. It may be simple or complex, but the projects all involve getting the student off the campus and into a real work situation. Their project may involve one or a number of networkers. Networker Janice Connell is a teacher in Golden Gate Elementary School in San Francisco.

CONNELL: My last Tunbridge student was Tim Lewis, and he was interested in becoming a creative writer and writing children's literature. So, he came to me, and he worked with the children in writing, and also he got their thoughts. He also worked with them in artwork to get their ideas of artwork of his story. So, his story was born in this classroom, and it is now completed. It's going to the printers, and so we saw his story begin here and end

here, and he's going to come back and present our room with the finished product, which will be his children's book.

TOBIN: Diane Steinberg was a student in the Tunbridge program during its first semester at Lone Mountain College. She hopes to be a veterinarian. Her project involved work at the San Francisco Zoo. She finished her Tunbridge program, but the zoo personnel liked her work so much, they asked her to stay on while she waits to enter the University of California.

What was the most difficult part of the Tunbridge program for you?

STEINBERG: Well, you're supposed to write in your journal twice a week. I ended up writing almost every day, but it was for me that I wanted to write every day, and sometimes it was hard to get into it. Sometimes I wrote real cold, and sometimes I wrote pretty emotionally.

TOBIN: Why was the journal important?

STEINBERG: Well, first of all, you have so many thoughts going on, and if you don't sit down and think about them, I don't think you'll benefit from them. And sitting down and having to write them, you think about them, and it's also sort of a measuring thing of how you've grown. If your tutor isn't there every night to go over it, then it's worthwhile to just sit down and, at least, think about it. The journal makes you think about it, because you have to write it.

TOBIN: Is there anything in particular that you liked best about the program?

STEINBERG: At first it was hard to accept, and I liked the freedom. At first, I couldn't get over the fact that I was free, and I had guilt, because after coming home from school, I felt like should I have homework, or what should I be doing. Sometimes I didn't work a full day, like a full school day. But now I know that I really want to study. I know that I'm ready to study and get into my work. Now I know what I want to do, and also I've had a break, and I'm kind of hungry for books.

TOBIN: Norma Vincent is a nurse in San Francisco who came back to school to explore new career possibilities.

VINCENT: One reason I went back to school was that I realized that I needed some structure, something to hang on to. And Tunbridge did give me the availability of people that I wouldn't have ordinarily found for myself. I'm not that aggressive about calling someone and saying, "Well, you've never heard of me, but I want you to talk to me." And Tunbridge did give me the support and the structure to do that.

TOBIN: Tunbridge is under constant evaluation by faculty and students. Jan Rakoff is confident that costs will come down as the program continues to grow.

RAKOFF: Let me distinguish between Tunbridge as a model and any kind of control. I'm interested in seeing the model used, spread, replicated and adapted. I'm not interested in turning this into a franchise like Howard Johnson. That's not what we're talking about. The word Tunbridge applies not to any kind of legal control. It applies to an educational method or model. I do believe in the

value of this approach, and I believe it has solved some of the major stumbling blocks facing experiential education and, therefore, on one hand I'm to be patient. On the other hand, I'm very impatient, because I would like to get this out and be used and to explore and discover some of the things we don't know yet.

TOBIN: For OPTIONS IN EDUCATION I'm Rose Mary Tobin in San Francisco.

MERROW: The Tunbridge program is expensive. It costs each student about $1,000 per semester. Recently, however, Rakoff received some foundation money, and now he sees the possibility of state funding, which could put the program within reach of many more students.

BLAIR: Unfortunately, such money doesn't come out of thin air -- except maybe for this next student.

> ISAAC BONOWITZ: "I took them back to the College of Letters and Sciences and filed them in quadruplicate and then I went home and cast a spell in quadruplicate. I've always shuddered to think what would happen if I'd only done that spell in triplicate."

BLAIR: And that's precisely how Isaac Bonowitz began his college degree program in magic. He has a Bachelors degree in Magic from the University of California at Berkeley. In fact, the Encyclopedia Britannica lists him as the first person to receive a degree in the occult from an acccredited academic institution. Isaac Bonowitz explains his college career to Tim Jones of member station KUMR in Rolla, Missouri.

BONOWITZ: I decided that psychology wasn't what I wanted -- I should give up and admit that I was an occultist -- and they had an individual group program that I enrolled in. The individual group major program at Cal, like similar ones at other institutions now, basically is a program where a student tailors his own degree program with strict faculty supervision. So, I took a number of courses from about a dozen different departments and typed them together in a nice neat little package, and decided to call them magic, because that's what I was studying.

JONES: What did the course work consist of throughout your college career?

BONOWITZ: The study of comparative religions, the study of "primitive" religion, folklore, mythology, psychology, statistics, some non-credit courses in things like astrology. The emphasis was very heavy on the social sciences because I believe if you're going to study parapsychological or occult phenomena, the social sciences have a lot more in the way of usable scientific methodology than hard sciences have.

JONES: You're not going to find this curriculum at just any college?

BONOWITZ: As a matter of fact, you could. At almost any college in the country, you could find these courses and put them together. The question is whether or not a given college has an experimental program wherein students are allowed to construct their own interdisciplinary majors. But most of the stuff I studied at Cal were good courses -- Cal's one of the best universities in the country -- but most of them were courses you could find in any major university in the country, or the world for that matter.

JONES: You received your degree back in 1970. Have any others followed in your footsteps?

BONOWITZ: Not at the University of California. Shortly after I'd left, a little sign appeared over the desk of the people in the College of Letters and Sciences who approve individual majors, and the sign said, "Do not under any circumstances approve any program that uses the word magic or witchcraft." I cannot understand why particularly. They got a lot of publicity about it, but the chancellor a couple of days before I graduated congratulated me, because he said I was the first person in all the years he'd been at Cal who had gotten publicity for the University for anything other than making bombs or throwing them.

JONES: What can you do with a degree in magic? Maybe a better question would be, what can't you do with a degree in magic?

BONOWITZ: Since getting the degree, I have published one book in about eight editions called "REAL MAGIC," which is now out of print, and I have taught classes. And a couple of years ago, I came out to Llewellyn Publications in Minneapolis, and for a year and a half, I was editor of their magazine called "GNOSTICA," which was basically the SCIENTIFIC AMERICAN for people involved in parapsychology, astrology, and the occult. Most of our writers were people who had advanced degrees and many years of background in different occult arts and sciences. You pretty much had to be a college graduate to understand the paper.

JONES: What do people say when you respond to their question -- what did you receive your degree in? And you say, "Magic." Do they have the wrong idea about magic?

BONOWITZ: Well, a lot of people think I'm joking, or they think I'm referring to stage magic, about which I have made it a point to know almost nothing in detail, although I know enough of the basic principles to tell when it's being used on me. Usually people will either shake their head, or they'll say, "Gee, it's really nice that academia is loosening up enough to start admitting the existence of things that everybody else has known have been around for thousands of years." Reactions are mixed.

JONES: You receive requests automatically, I suppose, for some sleight of hand.

BONOWITZ: Yes, and I know no sleight of hand at all. I know the basic theories of misdirection, because thousands of books have been published on that, but I have never done any physical training of sleight of hand or anything.

JONES: Do you continue on with your training?

BONOWITZ: Good grief, yes. I've been studying the occult now for about 13 years, and as far as I'm concerned, I'm a rank beginner. Learning to be a competent occultist is very much like learning to be a competent artist. You may learn the basics in a few years, but before you start putting out really magnificent work on a regular basis, it can be ten, twenty, thirty, forty years later. Actually, to be more precise, an occultist is closer to being an art critic than to an artist. He or she learns as much as possible about different schools of the occult, learns the basic principles underlying it, and then can explain them to people who know little or nothing about the occult. And I have primarily an academic approach to it.

JONES: Isaac Bonowitz -- who holds a self-tailored degree in magic from the University of California at Berkeley. He currently lives in Minneapolis, but will be moving back to Berkeley this spring to begin a school of the occult. For National Public Radio, this is Tim Jones in Rolla, Missouri.

(MUSIC) "WASN'T THAT ILLUSION FUN?..."

MERROW: Madison Avenue magicians know how the illusion is done. So does Dr. Burton White.

DR. WHITE: "Television advertising, for example, is the way the big toy company markets their toys. Toys for the first of year of life, you can't market directly to the baby, and you can't sell to several years' worth of children. So, it's inherently a less attractive product line for toy manufacturers. So there are lots of reasons why it won't be even."

STAMBERG: "So they won't put the money to developing really good stuff."

DR. WHITE: "You got it. There's a philosophy I've met in the toy industry, that you should by all means retail it for under $5.00, because then when it turns out to be worthless or breakable, you'll get low customer resentment. Those are problems that are hard to overcome."

BLAIR: Dr. White continues his conversation with NPR's Susan Stamberg -- first about television and then toys.

WHITE: I saw the first proposal for SESAME STREET. I was in on the founding of it in a minor way and managed to see the first proposal, and it quoted figures as to how many hours of television viewing young children did before they turned six, and so forth. The figures for children under three were false. They were grossly inflated. You have to ask yourself the question -- how would you know how much time a child spends watching television? You then can juxtapose what you know about the process of gathering such data. Very commonly, when you want to know whether somebody's watching a television program, you pick up the phone and you call a scientifically selected sample and you ask somebody something. That has its weaknesses that we all acknowledge, and its strengths. To ask about a child, however, is even more risky, because the parent is not reporting on what they do. They're reporting on what somebody else does. And you simply cannot get reliable information about it.

STAMBERG: You mean really watching -- paying attention, taking in what's going on, as opposed to overhearing while you roll the ping pong ball --

WHITE: Or as opposed to the set is on, and the kid isn't even in the room. Now, we've done what very few people have done before, and probably very few will ever do. And that is, we go to a home for a couple of hours 52 times over a two-year span. We know what's going on in that kid's life. Now, that's very laborious work. But you learn some things, and we've learned that under two years of age kids watch next to no television. It starts in earnest between two and three, and indeed, it starts earlier in the sense that even a one-year-old will attend to certain sound changes

in commercials, in particular, from nine months, ten months, one year of age, but they don't once they turn to it stick with it for longer than a few seconds. The only exceptions are that one out of every four or five well-developing children that we've studied got hooked on SESAME STREET by two. And by hooked, I mean hooked -- 59 minutes of steady staring. But that's only a small percentage of the very well-developing children. The poorly developing ones watched no television in sustained fashion until they were two. And then they started with more and more during the third year of life, and the figures never get beyond five or six percent of the waking time for any of the kids as a group.

STAMBERG: That's very interesting.

WHITE: Sure it's interesting.

STAMBERG: Now what happens, though, beyond three?

WHITE: Wait a minute, now, you see the book is about the first three years of age. (LAUGHTER)

STAMBERG: Aren't you lucky. In other words, you're not saying that you don't see television as the great monster, the tremendous danger for the --

WHITE: Did you watch THE INCREDIBLE MACHINE a couple of weeks ago?

STAMBERG: No, and I'm sorry I didn't.

WHITE: When people say to me, "Oh, everything is bad about television," it drives me up the wall.

STAMBERG: Yes, but look what you're picking. You're picking such an extraordinary exception.

WHITE: I know that, but if you select things from television, you can find a dimension of learning that your grandfather never had a shot at, and I think we tend to be either all-or-none types. It's totally bad, or it's totally good. And I've got plenty of friends who love sports and travel, who will not have a television set in the house, because they feel that there is nothing good on television. And you know very well that there are some stunning animal programs on television, some wonderful travelogues. Nobody is forcing you to watch some of the very poor stuff.

STAMBERG: But, basically, you don't see it as a terrible danger, as a detriment, as some sort of --

WHITE: I don't think there's a stitch of evidence for kids under three. Now, the rest of the stuff for children over three is beyond me. I can't figure out how to sort out the effects of television, as compared to the effects of other things in a child's life. And, frankly, I don't know very many scientists who are capable of it, either.

STAMBERG: That's really interesting. So, you get the mother of an eight-month-old who is stimulating the child all the time, listening to the child, compared to the mother who plunks her child in front of the television set -- you see some developmental difference.

WHITE: Oh, by all means, but it's not because television is evil.

A kid of eight months isn't looking at the set anyway. Furthermore, a kid of eight months is getting a lot of stimulation, not as much as you just alluded to. The best of our parents in terms of the effectiveness of the kids spends no more than a little over an hour a day at this job. It is not an all-time job. You can do it part time quite nicely.

STAMBERG: It's the intensity of the time. It's the quality of what happens during that limited time.

WHITE: It's the quality, yes, not the quantity.

STAMBERG: What about play equipment, fancy kind of things, educational toys?

WHITE: Well, they are grossly oversold and overrated, in my opinion, and I feel that opinion very strongly. I've had a lot of experience with the toy companies of America, not all of them, but four or five of the very biggest, and like the garment industry in New York, this is a nervous high-pressure operation everywhere. And they believe in very hard sell, and so forth and so on. But I find that it's a rare toy that has what they call in the trade "play value" of any consequence for children under three years of age. A child seven or eight months of age has three tremendously deeply felt interests in life -- coming to terms with another human being, writing a social contract, which is very complicated and important, mastering motor skills like sitting, pulling to sit unaided, pulling to stand, cruising, climbing, walking, and so forth. And also the sheer explanation of this totally new world that they are now able to move about in. Small wonder that very few toys can compete with those three dominating interests. There are a handful of good toys for the age range, but only a handful. And if you never bought one, the child could develop magnificently without them.

In the first six to seven months of life, children could use toys a little bit more, because they can't get to all the things out there. And, fortunately, there are virtually no toys on the market that are intelligently designed for children under six or seven months. In fact, the book has sections to try to explain enough so that you can guide yourself in either toy selection or in building your own informal stuff.

STAMBERG: Under six months?

WHITE: Well, all the way through to three years. That's covered throughout the book.

STAMBERG: But pots and pans and big wooden spoons are really terrific.

WHITE: They are marvy, and kitchen cabinets complete with their doors and their cavernous internals are very good. The single most popular item for children between one and three that we've ever met are balls of one sort or another. And two that are the best of the batch are the big 29¢ inflatable beach balls and ping pong balls. The price has gone up to 15¢ a ball, but it's still a pretty good buy.

STAMBERG: Why is the ping pong ball so good? I should think that would be very frustrating to a little kid, because it bounces so high. It gets way out of his reach. He's got to go scurrying for it, and boom, it's bounced away some place else.

WHITE: Well, it shows you you can be wrong. (LAUGHTER)

First of all, you don't give a ping pong ball to a child under thirteen or fourteen months, because if they crush it, they may be inclined to eat it and get hurt. But a little bit older than that, they're less careless with it, and if you watch them a little bit, you'll find that there's no major danger. It's an interesting story. Just about all these facts are rooted in fascinating background material, like between birth and two years of age, the mentality of a child grows in regular manners, beautifully and brilliantly described by Jean Piaget, a Swiss student of the growth of the mind. Nobody can say anything more intelligent than he about the roots of intelligence.

In the early stages, the outside object world in the first months of life is of negligible interest to the child. He's much more interested in more primitive reflex behaviors of his own and becoming somewhat familiar with his own body. By the time he's two, he's going to show you tremendous interest in the object world, in those things out there. And in between, there's a transition period exemplified by when he practices dropping things off the edge of a play table. He's interested in his own motor action of dropping, but he also starts to show you an interest in the path of motion of the object. Now, from then on, say seven months or so, till two, interest in the object world grows, and the child is interested in not only whether he can bite it, and gum it, or swing it or bang it, and all the other things, but also whether you can throw it. And then, what happens to it when you throw it. You throw a lump of mash potatoes, it does one thing. You throw a ball, it does something else. You throw a football, it does something else. The ping pong ball is interesting in many ways. First of all, it's a thing and it has interesting object qualities to it. It makes an interesting sound pattern on a wooden floor, and it costs you very little to get it. Secondly, it can roll around an awful lot. You get a lot of return for a little input. In addition, it feeds into the child's interest in motor mastery, because when he throws it, he's practising throwing. Then he has to practice walking over to get it, and he's got to practice retrieving it, and carrying it back. And, in addition, this marvelously elegant item is a good thing for getting something going with another person. We play ball a lot in this country, in all domains, and the ping pong ball is a natural prop by which a baby can interact with a mother, or a father. So, for all those many reasons we come down to a fine focus on 14¢ worth of celluloid as probably the Nobel Prize Winner of physical material for kids under two.

STAMBERG: Isn't that wonderful.

WHITE: Isn't it -- and it's all believable too. I haven't told you anything that sounds crazy.

STAMBERG: No, not a thing.

BLAIR: Burton White -- talking with NPR reporter, Susan Stamberg.

(MUSIC) "THE MARVELOUS TOY"

BLAIR: Toys and make-believe are for little children, but make-believe can be used as a teaching tool.

STUDENT: "Right and wrong I don't think come into it a lot. It's very political, and your politics

dictate the whole thing. Politics are going to dictate your policy. You might believe very strongly on a moral issue, but politics are going to tell you you have to loosen up on that particular issue just for the sake of politics. I'm Venezuela -- the policy that I follow is the policy that Venezuela --"

MERROW: Last month, over two thousand high school students came to Washington, D.C. to participate in the North American Invitational Model United Nations sponsored by Georgetown University. The students represented the nations, and I went too, representing the press. I polled the delegates to find out what they were learning.

STUDENT: You learn about the UN by meeting with delegates, ambassadors -- you learn about different points of views of different countries.

MERROW: Underneath your name it says Bolivia, and I know you're from Manhattan, New York.

STUDENT: That is the country we're representing in the United Nations.

MERROW: As a Bolivian delegate, what are you speaking out in favor of?

STUDENT: Basically, the unity of the Latin American countries and the developing nations.

MERROW: At a General Assembly meeting -- is it conducted just as the UN is? You shook your head 'no.'

STUDENT: It's loosely similar, very loosely similar. In terms of the regular UN, resolutions are more or less law. These resolutions are full of loopholes. Theoretically, when you have a resolution that passes by acclamation in committee, it should pass quite well in the General Assembly. It doesn't necessarily work that way here. Countries switch policies, because someone in the committee will vote 'Yes' on a resolution and then in plenary the head delegate will disagree, so the country will change its vote. There's not total consistency.

MERROW: Both of you represent the country of Mongolia?

STUDENTS: Yes.

MERROW: What position does Mongolia take in the UN and in the Model UN?

STUDENT: We follow the Soviet Union very closely.

MERROW: Do you ever find yourself saying things that you really don't believe?

STUDENTS: Yes.

STUDENT: Well, we're Communists in the Model UN, and we're not really Communists, so the views are very different. We're afraid of China, and we're using Russia and China against each other so no one will eat us up.

STUDENT: We're kind of puppets in a way.

MERROW: How does this change your view of politics?

STUDENT: Oh well, I know that there's a lot of game playing going on. Everyone is playing against each other. I'm either going around canvassing votes, and it's really a big dog-eat-dog thing. I didn't realize how much so before.

MERROW: Students dealt with the harshest political realities, like war, both past and future. And they did their homework. The conference staged three war simulations. Brian Edelson represented Denmark in the War of 1814.

EDELSON: Well, we fight on paper. We have armies, and we have money, and we have moderators who serve to decide who wins a battle.

MERROW: But that was decided quite a long time ago, wasn't it?

EDELSON: Right. This is also to see what your knowledge of that time period is and the strategy you have, if you can succeed where Napoleon failed. And each country is given a certain objective. France must keep her empire and expand. Denmark must stay alive and expand. And Great Britain must -- something in that sort.

MERROW: So you mean you could rewrite history if it turns out that you, representing Denmark, know more than the dudes representing France?

EDELSON: Right, if I could pull some kind of thing out of my hat and take the Continent of Europe, I would win.

MERROW: How are you doing?

EDELSON: Okay. I'm staying alive, and I'm expanding, but I'm not winning.

MERROW: Those who do not know the past may be doomed to repeat it. Challyce Bolden of Washington, D.C. represented a country in a futuristic society.

BOLDEN: Well, they have a make-believe world and make-believe countries, and what you do is you try to maintain the economic balance and not to make war.

MERROW: How are you doing? Are you managing to keep the peace?

BOLDEN: Well, we were fine -- we were a super power until the war, and we got all wiped out, and we were a little tiny country then, but now we're struggling to get back and become a developing nation.

MERROW: What country are you representing in this simulation?

BOLDEN: It's a country called Lito Krom, and it's a confederation of two countries.

MERROW: Oh, the whole thing is made up then -- it's really a made-up world.

BOLDEN: Yes, the whole thing, the names, like Anaries, and Ruin, and Lito.

MERROW: Sounds like something out of Star Trek.

BOLDEN: Yes, it's really weird, but I love it.

MERROW: Is it really fun?

BOLDEN: I love it. I really do love it.

MERROW: Now, you used to be a super power, but you got destroyed in a way. How did that happen? Did you let your defenses down?

BOLDEN: No, it was like we were there, and then all of a sudden, they threw their missiles at us, nuclear missiles, and it wiped out all our basic capability. That's a BC, and what we have to do now is we have to trade with different countries and try to trade their BC so we can get more power.

MERROW: BC is basic capability?

BOLDEN: Yes, basic capability.

MERROW: And all this is happening in a couple of days.

BOLDEN: That's right. It's fantastic.

MERROW: Participants at a Model United Nations in Washington, D.C. This is John Merrow.

(MUSIC) "LAST NIGHT I HAD THE STRANGEST DREAM..."

MERROW: If you'd like a transcript of this program, send 25 cents to National Public Radio - Education, Washington, D.C. 20036. Cassettes are available for $4.00.

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(MUSIC)

BLAIR: This program is produced by Midge Hart, the Executive Producer of OPTIONS IN EDUCATION is John Merrow. I'm Wendy Blair.

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